

Entry
Approved
LDR

Appl. No.: 10/718,230

Amdt. Dated February 1, 2006

Response to Office Action Mailed December 2, 2005

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in this application.

1. (Currently Amended) An automatic tracking apparatus for a reflector comprising:

a surveying machine body;

an illumination portion, which is disposed in said surveying machine body for illuminating, and illuminates a measurement light of a modulated measurement light toward a reflector;

a light receiving portion, which is disposed in said surveying machine body, and which has an image sensor for receiving a reflection light image of the measurement light illuminated toward said reflector;

an arithmetic device configured to calculate a position of the reflection light image from said reflector in an area of said image sensor; and

a rotation mechanism ~~for rotating, which rotates~~ said surveying machine body ~~so as to such that the position of said reflector the reflection light image on a light receiving optical axis of said light receiving portion based on the position~~ obtained by said arithmetic means device becomes a center of the image sensor,

wherein said light receiving portion is provided with a light receiving sensor, which has having a smaller area than the area of said image sensor, and is disposed in a conjugated position